

IN THE CLAIMS

This listing of claims replaces all previous listings:

1. (Currently Amended) A field electron emission film on an electrode substrate, said field electron emission film, comprising:

an ink; and

a carbon nanotube structural body of 0.001 to 40% by weight and a heat-decomposable metal compound dispersed therein,

wherein,

said ink is coated and sintered on said surface of said electron substrate,

said heat-decomposable metal compound in said ink is decomposed to a

heat decomposition product by sintering and

said heat decomposition product having an adhesive characteristic

imparted by said sintering, and

said field electron film has a surface roughness of 1500 nm or less.

2. (Previously Presented) The field electron emission film according to claim 1, wherein, said heat-decomposable metal compound is an organo-metallic compound.

3. (Previously Presented) The field electron emission film according to claim 1, wherein, said heat-decomposable metal compound is a metal salt.

4. (Previously Presented) The field electron emission film according to claim 1, wherein, said heat-decomposable metal compound is an organo-metallic salt compound.

5. (Previously Presented) The field electron emission film according to claim 1, wherein, said heat-decomposable metal compound is a metal complex.

6. (Previously Presented) The field electron emission film according to claim 1, wherein,

said a heat-decomposable metal compound is composed of a plurality of metals.

7. (Previously Presented) The field electron emission film according to claim 6, wherein, said plurality of metals are Sn and at least one metal is selected from the group consisting of In and Sb.

8. (Currently Amended) The field electron emission film according to claim 7, wherein, said plurality of metals are Sn and In, and the ratio of Sn to In is at 6-~~at~~ % or more.

9. (Previously Presented) The field electron emission film according to claim 1, wherein a thickness of said field electron emission film is 0.05 μm to 20 μm .

10. (Currently Amended) A field electron emission electrode of 2-pole type, comprising:
a support,
a cathode on said support; and
a field electron emission film on said cathode,

wherein,

said field electron emission film comprises an ink having a carbon nanotube structural body of 0.001 to 40% by weight and a heat-decomposable metal compound dispersed therein,

said ink is coated and sintered on said surface of said cathode,

said heat-decomposable metal compound in said ink is decomposed to a heat decomposition product by sintering, and

said heat decomposition product having an adhesive characteristic imparted by said sintering, and

said field electron film has a surface roughness of 1500 nm or less.

11. (Currently Amended) A field electron emission electron of 3-pole type, comprising:

a support;
a cathode on said support;
an insulating film on said cathode;
a gate electrode on said insulating film;
a first opening in said gate electrode;
a second opening in said insulating film ;
said first and second opening overlapping at least in part; and
a field electron emission film at least on said cathode exposed in the opening,
wherein;

said field electron emission film comprises an ink having a carbon
nanotube structural body of 0.001 to 40% by weight and a heat-decomposable
metal compound dispersed therein,

said ink is coated and sintered on said surface of said cathode,

said heat-decomposable metal compound in said ink is decomposed to a
heat decomposition product by sintering, and
said heat decomposition product having an adhesive characteristic imparted by
said sintering, and

said field electron film has a surface roughness of 1500 nm or less.

12. (Currently Amended) A field electron emission display device comprising:

a cathode panel having a plurality of field electron emission electrodes disposed thereon;
an anode panel having a fluorescent layer and an anode disposed thereon, the both panels
being bonded at the individual circumferential portions thereof; and
a field electron emission film on said cathode panel,

wherein,

said field electron emission film comprises an ink having a carbon nanotube structural body of 0.001 to 40% by weight and a heat-decomposable metal compound dispersed therein,

said ink is coated and sintered on said surface of said cathode,

said heat-decomposable metal compound in said ink is decomposed to a heat decomposition product by sintering and

said heat decomposition product having an adhesive characteristic imparted by said sintering, and

said field electron film has a surface roughness of 1500 nm or less.